Downward Trends in

Exploration & Mineral Development in the U.S.

Testimony to the

House Resources Sub-Committee on Energy and Mineral Resources

Oversight Hearing on Strategic and Critical Minerals

Thursday, July 17, 2003

By: Ann S. Carpenter

Consultant – Domestic and International Mineral Development

Advisor & Past President – Women's Mining Coalition

Washington, D.C.

July 17th, 2003

Chairman Cubin and Members of the committee:

Thank you for the opportunity to testify before this Subcommittee today. My name is Ann Carpenter. I am an advisor to and past president of the Women's Mining Coalition and work as a professional exploration geologist in the domestic and international mineral development arena. Today I will discuss impediments to mineral exploration and development in the U.S. and impacts to our domestic mining industry. I am here representing the Women's Mining Coalition.

The Women's Mining Coalition was organized in 1993 and is a grassroots coalition supporting environmentally responsible mining. WMC membership is diverse and nationwide, representing many sectors of the mining industry, including coal, energy, metals, construction materials, stone, industrial minerals, and the vendors and manufacturers who provide goods and services to the mining industry.

I have a bachelor's degree in Geology from Montana State University in Bozeman, Montana and have more than 20 years of experience in the mining industry. I have worked throughout the Western U.S. – from Alaska to Southern California and east to Colorado. Additionally I have worked in the international exploration arena – in Mexico, Peru, Argentina, Chile, and Africa – evaluating mineral properties and company acquisition opportunities, and assessing the mineral potential of several countries for various companies. My work experiences have focused on the exploration for and development of metal deposits (gold, silver, copper, lead, zinc), with some additional ventures into the industrial mineral sector.

BACKGROUND

Today I would like to discuss the impediments to mineral exploration and development here in the U.S., and concerns for the long-term viability of our domestic mining industry from the perspective of an exploration geologist. Exploration is the 'research and development' arm of the mining industry. It is crucial and necessary in order to keep a flow of projects in the production pipeline, supplying us with the raw materials we need.

The mining industry is an important part of the U.S. industrial base. This industry provides many of the raw materials required for housing, transportation, power generation and transmission, communications, the tech-industry, health care, agriculture, and the arts. Mined materials are also used to create and maintain a clean healthy environment. Mining contributes to the nation's overall standard of living, contributing to the

health and well being of not only all Americans, but people the world over.

The U.S. has seen a drastic decrease in the exploration for and development of mineral resources since 1997, not all of which is attributable to decreases in metals prices. Exploration for mineral resources has continued globally even through low metals prices, yet the U.S. has lost market share in mineral development. At an ever increasing rate, investment dollars are being spent on projects overseas instead of here in the U.S. This has occurred even though the U.S. is highly regarded for its diverse geologic terrains and related mineral resource potential.

Exploration for mineral resources is a very risky business – the statistics for success are staggeringly low. Approximately 1 out of 1000 projects reviewed will progress to an advanced-stage exploration and development phase. Making a mine out of an advanced-stage project is dependent on many variables, and mine decisions do not come easily or cheaply.

Investment capital to advance exploration properties generally comes from what is termed the “junior market”. Historically, these have been small companies who secure their funding from the venture capital markets in Toronto, Vancouver, London, and other places around the globe. Investors assess properties and investment opportunities based on many factors, two of which are key – the mineral potential of any given area and the political stability of the country where the property is located. Both are considered when reviewing for investment attractiveness (to determine if investment dollars will be well spent). The exploration projects of the small companies today often become the development projects of larger operators tomorrow.

The Fraser Institute (an independent Canadian economic and social research and educational organization) has conducted an annual survey of metal mining companies since 1997, assessing how mineral endowments and public policy factors affect exploration and development investment. Since 1998, the survey has expanded from just reviewing Canadian provinces to also include a number of states in the U.S. and a growing number of nations globally. In 2002, the survey was expanded to review the investment attractiveness of 45 jurisdictions including the Canadian provinces and territories (except Prince Edward Island), selected US states (this year Alaska, Arizona, California, Colorado, Idaho, Minnesota, Montana, Nevada, New Mexico, South Dakota, Utah, Washington, Wisconsin, and Wyoming), Argentina, Australia, Bolivia, Brazil, Chile, China, Columbia, Ecuador, Ghana, India, Indonesia, Kazakhstan, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, South Africa, Venezuela, and Zimbabwe.

Many in the mineral exploration community use this survey when considering investment risks and where best to spend exploration dollars regarding mineral resource development globally. Over the last 3-5 years, states in the U.S. have lost ranking in this survey. For instance, in 1998, Nevada ranked number 1 in the Policy Potential Index, number 4 in the Mineral Potential Index, and number 1 overall (Investment Attractiveness Index - IAI). By 2002, Nevada’s ranking fell – to number 2 in the Policy Potential Index, to number 8 on the Mineral Potential Index, and to 4 overall. Table 1 compares the Investment Attractiveness Index for the 1998-99 Survey to that of 2002. In almost every case, the states lost ranking in the 2002, loosing out to other Canadian provinces and countries around the world. Three states (ME, MI, MO) are not being considered in the 2002 survey.

Table 1.

State
1998-99 Survey Ranking
2002 Survey Ranking

AK
9
15

AZ
10
19

CA
25
38

CO
16
33

ID
11
32

ME
28

MI
26

MN
27
42

MO
21
21

MT
14

NM
17
31

NV
1
4

SD
24
37

UT
12
27

WA
23
43

WI
30
44

WY
22
41

of 31 Provinces, states and countries
of 44 Provinces, states and countries

Appendix A has figures and brief summaries from the Fraser Institute 1998-99 Survey. Figure 5 in Appendix A illustrates how the states ranked against one another. Appendix B has some of the figures from the 2002 survey, and Chart 1 illustrates how the states ranked against one another (from the 2002 survey data).

Some have suggested that the mineral potential of the U.S. has been tapped out, as stated by one Department of Interior official who suggested in 1999 that all of the gold in the U.S. had already been found (personal communication, 2003, John Dobra, Associate Professor of Economics, UNR). As an exploration geologist, I find this statement lacking reason or scientific basis. Several new discoveries in Nevada were made in 2001, well after this statement was made. These have mainly been at or near existing mine sites where most exploration dollars are being spent.

New discoveries are the result of focused scientific investigation, committed investment dollars, and ever changing and evolving technologies. These help to advance the understanding of geologic processes and mineral deposition, leading to mineral resource discoveries. Mineral deposits continue to be found in newly discovered, grassroots areas, as well as in 'mature' geologic settings where mineral deposits have been previously discovered and defined. Advances in the geologic and exploration-related sciences during my career, have led me to revisit historic mining districts I had previously explored because they are 'prospective' once again as a result of the advances in geologic sciences, data collection techniques and new technologies.

As an example, Nevada has been a world leader in gold production from surface open-pit mining operations since the 1970s. These are typically large, lower grade deposits, produced utilizing technologically advanced techniques. More recently with newer technologies and advances in the geologic understanding of mineralized areas, significant higher-grade underground deposits have been identified and developed – in areas where modern underground mining has not been the norm.

Despite these new discoveries, mining companies are investing less money in the U.S. and instead spending their research and development (exploration) dollars off shore.

I have personally experienced a drastic decrease in the funding of U.S.-based mineral exploration and development projects. My experiences are but a small window into the larger decreases seen in the exploration sector of the mineral development industry. Companies I have worked with since 1996 have chosen to cancel budgets here in the U.S. and re-channel their funds to "less politically risky places" such as Africa. That was a chilling statement, made to me by an investment client in 1997 in the face of the controversy surrounding the revisions of the 3809 Regulations and the Millsites Opinion – both of which created such an unstable investment climate that my client and others in the investment community decided to take their exploration and development dollars overseas. That exodus has not stopped since 1997.

TRENDS-IMPACTS

Regulatory and policy uncertainties initiated by the revisions of the 3809 Regulations and fueled by the Millsite Opinion, regulatory inconsistencies, bonding crisis, and access issues continues to deter the development of new mines in the U.S., with investment dollars being spent overseas at an ever increasing rate. The Fraser Institute 2002 survey reports that senior mining companies are now spending only 7% of their exploration budgets here in the U.S., while junior companies might be spending 10% on U.S. exploration projects. This is a radical decrease – seriously down from highs of roughly 50% of budgets being spent in the U.S. in the recent past (Figures 1 and 2).

Figure 1.

Figure 2.

During the 1990's while the rest of the US economy was booming, there was a serious decline in U.S. mining activity, a decline that continues today with some of the trends and impacts illustrated below:

Since 1996, there has been a 73% decline in new claims.
Exploration expenditures have continued to steadily decrease and grassroots exploration has virtually disappeared in the U.S. More money is consistently being spent on overseas projects.
Mid-size producers and "juniors", generally where most exploration investment dollars come from, have

chosen to invest overseas rather than in comparatively equal opportunities in the US.
Large mining companies are replacing depleted domestic reserves by acquisition of producing properties through mergers rather than exploration for new prospects.
Mining schools are being lost outright; some are being closed, and others are being consolidated and assimilated into other programs at universities – loosing their mining focus and expertise.
Greater challenges related to economic and national security issues.

The results – U.S. is exporting mining investment dollars and engineering talents and innovations to countries where metal mining is expanding at an ever increasing rate. As well, other losses include tax and related revenues and jobs at the local, state, and national levels; an increase in foreign reliance on foreign produced minerals and products; and other related negative economic impacts to rural American communities where mineral resources are generally, and more likely to be developed.

An Exploration Geologist's View

As an exploration geologist, I am particularly sensitive to this decrease in exploration funding here in the U.S. – not only when considering my own ability to make a living, but more importantly when considering the severe impact on rural communities due to this downturn. Mineral exploration activities are commonly focused in remote regions of the American west. Decreases in exploration spending here in the U.S. directly impact rural communities in these areas. Below are some of the very basic expenditures 'in the day of the life' of an exploration geologist:

BASIC EXPENDITURES

Hotels – approximate $60/day
Meals – approximate $35/day
Fuel, based on 100 mile roundtrip @$0.45/mi $45/day
Total for these basic expenses $140/day

Taking this a step further, in a good year I might work in the field approximately 200 days, living and working away from my home and staying in rural communities throughout the west. That equates to approximately $28,000 in expenditures funneled into rural communities. If 100 geologists were working regularly to explore the nation's mineral resources, this number might jump to roughly $2.8Million dollars. These are dollars that would likely be spent in rural communities if exploration and development were being encouraged here in the U.S. – based on just 100 geologists working. This is a very conservative estimate of exploration spending.

The calculations above only include the most basic of expenditures, and do not begin to summarize the truly large expenses related to additional exploration investments – rock sampling, assaying, drilling, engineering evaluation, metallurgical testing, to name but a few – and are further examples of jobs and revenue possibilities in a strong exploration climate, for many communities across the west.

IMPEDIMENTS TO DEVELOPING MINERAL RESOURCES

"Mining is difficult no matter where you go in the world. But at least in other countries I know that if I meet the regulatory and legal requirements, I'll get a permit ... I don't know that in the U.S. – I never know if or when I'll finally get a permit – even if I can demonstrate the mine will be in full compliance." Senior Mining Executive, 2003

I have been witness to a declining mineral development business here in the U.S., while watching and participating in a relatively stable minerals exploration and development industry overseas. I have personally experienced radical decreases in funding and eliminations of budgets for U.S.-based exploration programs due to the 'uncertainties' that are associated with U.S. laws, regulations, and policies regarding mineral development. Most companies willing to invest in mineral properties worldwide regard the U.S. as highly prospective for mineral discovery, but highly risky regarding regulatory processes and policies, with an increasingly cumbersome and negative permitting regime.

The perceptions of 'uncertainty' are and continue to be aggravated by many factors. I will discuss five, including: the revisions to the "3809" regulations; the release of the former Solicitor's Millsite Opinion; inconsistent interpretation and implementation of existing regulations; the bonding crisis, and access issues.

Negative Impact of the 3809 Revisions

The Bureau of Land Management's October 2001 revisions to its Section 3809 regulations were necessary to achieve consistency with the recommendations of the National Academy of Sciences (NAS) in its report, "Hardrock Mining on Federal Lands," completed in 1999. The NAS study, requested by the governors of the Western States and mandated by Congress, established a clear and scientifically based benchmark for appropriate environmental protections associated with hardrock mining on federal lands. Importantly, the revised 3809 regulations include improved bonding provisions, ensuring that adequate funds be guaranteed for reclamation of mining operations, a change that was supported by the mining industry. One of the key findings by the NAS team was that the existing regulations were generally adequate in providing environmental protection. The NAS team also indicated the greatest improvements that could be realized regarding the 3809 regulations would be if there were more consistent interpretation and implementation in the field, as well as better agency management and staff training. These recommendations have yet to be implemented in the field.

Although the U.S. mineral industry was supportive of updating the 3809 regulations and worked with DOI and others to achieve this, the revision process initiated a climate of uncertainty regarding regulations. This was then followed by the 1997 Millsite Opinion, which fueled the exodus of mining-related investment dollars from here in the U.S. to properties overseas, which continues today.

Negative Impact of the Millsite Opinion on U.S. Mining

The General Mining Law authorizes staking mining claims on public lands for the purpose of exploring for and developing 'locatable' mineral deposits, including base metals (copper, lead, and zinc); precious metals (gold, silver, and platinum group metals); uranium; and certain industrial minerals including gypsum, lithium, borates, barite, diatomite, and some clays and limestones. This law also defines several different types of claims including lode, placer, millsites, and tunnel sites that are used for different applications in specific situations.

In 1997, the Department of the Interior (DOI) Solicitor issued an opinion on the use of millsite claims, applying a maximum allowable ratio of one-to-one between lode claims (approximate 20-acre claim staked on valuable mineralized land), and millsite claims (5-acre claim staked on non-mineralized ground, to be used for mining facilities and infrastructure). The Millsite Opinion is wrong and has no basis in law or policy; this arbitrary ratio is a radical departure from the way in which the Department of Interior interpreted and administered the 1872 Mining Law since its inception. In 125 years of judicial interpretation, not one case has addressed or discussed or implied a ratio between lode claims and millsite claims. Furthermore, the opinion is expressly contrary to long-standing BLM and USFS policy:

· 1991 BLM Manual at Section 3864.1.B provides "A millsite cannot exceed 5 acres in size. There is no limit to the number of millsites that can be held by a single claimant."
· 1990 USFS Manual at Section 2811.33 provides "The number of millsites that may legally be located is based specifically on the need for mining or milling purposes, irrespective of the types or numbers of mining claims involved."
· The California State BLM office has records indicating that multiple millsites have been the practice since at least as far back as 1903.

Nothing in the 1872 Mining Law suggests a one-to-one millsite-to-lode claim ratio. Rather, the criteria used by federal land managers to evaluate the appropriate use of millsite claims was that the land should not be mineralized and there should be a demonstrated need for the land upon which the processing and ancillary facilities were built. The Millsite Opinion is a back-door administrative attempt to change the U.S. mining law to remove the existing right to use as much of the surface of non-mineralized public land (millsite claim) as is reasonably needed to support the development of a mineralized claim (lode or placer)

An Example – Exploration Stopped

The 1997 Millsite Opinion has helped to fuel the perception of regulatory uncertainty here in the U.S., contributing to shifting mining investments overseas. I personally had $2 Million US pulled from a proposed U.S. exploration budget and channeled to Africa – because the exploration company perceived that it would be less 'risky', from a regulatory perspective, to work in Africa than here in the U.S. This occurred in 1998, and was the direct result of the unease caused first by the revision process of the 3809 Regulations, and seriously exacerbated by the 1997 Millsite Opinion.

An Example – Mine Development Stalled

According to Greg Hahn, President and CEO of Summo USA Corporation, the company's initial goals prior to 1999 were the development of copper resources in the US that were too small for the major copper producers. Their current focus has shifted to copper projects primarily outside of the US. This shift is a direct result of the adverse investment impacts created by the former Solicitor's Millsite Opinion. As well, the uneven leverage afforded anti-mining groups in opposing and appealing projects, and the uncertainties in the regulatory and permitting arenas creates a negative investment climate here in the US, further prompting this company to seek investments offshore. The table below in part illustrates this:

Summo USA Corporation – Exploration and Development Expenditures

Years US Projects Foreign Projects
1995-1999 $14Million <$1Million

1999-Present $<2Million >$9Million

Inconsistent Interpretation & Implementation of Existing Regulations

The USA needs a dose of "environmental realism based on good scientific/ engineering policies."
Evaluations Manager, senior mining company (Fraser Institute 2002 Survey)

Mining is a modern, high-tech, environmentally responsible industry providing minerals essential to the nation's economic growth, to its national security and to American's quality of life. Laws and regulations governing mining should provide clear and consistent environmental guidelines, facilitating compliance efforts by exploration and mine operators. This would begin to reduce regulatory uncertainties, helping to attract needed capital to the domestic mining industry.

I have first hand experience managing permitting requirements on exploration projects (Notices of Intent and Environmental Assessments). As well, I was the company lead in 1997 on a team completing a detailed Environmental Impact Statement (EIS) through the Bureau of Land Management on a proposed mining project within 50 miles of Reno, Nevada. This EIS was completed in less than 18 months on a complex mine proposal.

Through my various permitting experiences, and comparing notes with my peers addressing similar permitting concerns, the mounting inconsistencies surrounding interpretation and implementation of existing laws and regulations creates a major hurdle in mineral development here in the U.S. This translates to serious permitting delays and related elevated costs to projects. One result is a lengthened permitting process, with an EIS taking at least by 2-4 times longer to complete now than it did 5 years ago. This does not factor in the possible lengthy delays brought on by lawsuits – which has become a 'next step' by groups opposing mining here in the U.S.

Other areas of uncertainties in the permitting process include:

Uncertainty and legal confusion over recent developments involving Native American sites
Endangered Species Act
Uncertainty regarding possible new Mining Law legislation
Uncertainty of legal appeals
Transparency issues – agencies not operating to the same transparent standards as the industry is required to, such as was seen at the Crandon Mine Project, WI ("Under the Guise of Environmental Protection" EPA Revealed, National Wilderness Institute report, 2000).

Bonding – Predicaments & Impediments
Some form of financial assurance is a prerequisite to obtaining permits, and this has traditionally been in the form of a surety bond. Mining companies, both large and small, are experiencing increased difficulty in securing the necessary bonds to satisfy financial assurance requirements under various regulatory programs. Today, surety bonds for mining related obligations are virtually unavailable at any price, with or without collateral. Below are some reasons for this downturn:

The Enron, K-Mart, Global Crossing and W.R. Grace bankruptcies
September 11, 2001 terrorist activities (insurance industry lost about ½ of its $150 billion pre 9-11 capital)
The surety industry is experiencing increasing losses on non-mining obligations

Mine reclamation bonds represent less than 1% of the surety business line, but have the longest tails

Regulatory impediments have contributed to the surety industry's decision to place its capital in businesses other than mining, ones with more favorable risk/reward profiles. Such impediments include:

Large bond amounts, inflated due to excessive contingencies, speculative assumptions, and other cost factors (3d party, Davis Bacon, excessive overhead, etc.). All of this results in an increase of approximately 40% above the actual cost of reclamation. This includes exploration projects as well.
Glacial pace at which BLM (at least in NV) reviews and approves bonds
Severe reluctance to release bonds once the reclamation work has been completed
Complex and constantly changing regulatory schemes

The mineral development industry needs assistance in addressing bonding impediments toward finding a workable solution.

Access Issues
According to the GAO, as of September 30, 1993, the federal government owned approximately 650 million acres and was managing 271 million acres (43.7%) for conservation purposes. In the ensuing ten-year period additional lands have been acquired and are designated as managed for conservation purposes through various administrative and legislative processes. Some of these designations are listed below:

California Desert Protection Act - 7.7 million acres
Clinton's National Monuments - approximately 4 million acres plus
Previous Administration's Roadless Rule - 60 million acres

These designations increased the total federal acreage managed for conservation purposes from approximately 44% in 1993 to 55% at present. These numbers do not include endangered species habitat.

Lands managed for conservation purposes and military reservations are generally not open to mineral entry. Additional land designations and programs that impact access and impede mineral exploration and development include:

Time restrictions on physical exploration of a prospect that involves building access roads, drilling or trenching, in order to accommodate the mating, early life stages, feeding and watering or migrating habits of threatened and endangered species. In Eastern Nevada there are numerous examples where exploration drilling of prospects adjacent to operating mines was severally restricted for these purposes.

Withdrawal of areas prospective for mineral discovery from mineral entry, such as Crown Butte (defined and designated mineral reserves) and the Sweet Grass Hills (existing claims and ongoing mineral exploration projects) in Montana

Indian Sacred Sites (one of the reasons given for setting aside the Sweet Grass Hills and the denial of Glamis Gold's permit in California)

Land exchanges

Having a prospect or discovery in close proximity to an area that has been set aside for conservation purposes, even if it has been expressly left out of the conservation area because the area is prospective for or is known to contain valuable mineral deposits (Crown Butte - Montana)

Wilderness Study or Roadless Areas (RARE I & II Lands, which are now incorporated in the Roadless Rule)

Many of these withdrawals and designations occurred without review for: mineral potential; renewable and/or non-renewable energy potential; and impacts to existing communities. In some cases, known mineral and energy resources were dismissed – as was the case with the Grand Escalante-Staircase Monument listing. These numbers are conservative and do not include other actions by the previous Administration, such as former Secretary Babbitt's removal from mineral entry of almost 3 million acres. This occurred in the first 9 months of 1999, and includes twenty-year moratoriums for mineral entry over areas – Crown Butte and Sweet Grass Hills in Montana – with known, defined and engineered mineral resources.

In contrast to the lands set aside for conservation purposes, mining in the U.S. has impacted approximately 6 million acres slightly more than two tenths of a percent. About 45 percent of the areas impacted by mining

have been reclaimed and many other areas are still actively being mined.

IN SUMMARY

The U.S. needs to “Get back to the reality that the U.S. is dependent on metals to make the economy grow and prosper – same with energy.” President, junior mining company (Fraser Institute 2002 Survey)

The permitting and regulatory processes have become slower and more litigious with each passing year. We have seen many viable projects taken into the courts after interminable permitting reviews, studies, and processes. As a result, the investment community is taking its monies overseas; we are losing jobs, revenues, and income to this flight overseas; and we are becoming more reliant on foreign sources for the minerals that we consume daily.

For me, the displacement of the domestic mining industry raises a poignant dilemma.

In all of the places overseas I have had the opportunity and pleasure to work, one recurring question is always asked of me by the locals – “Why are you here taking my minerals?” Is this a question of mineral or foreign policy, or a combination of both? Most of the time, the question is rhetorical or they will answer it with this assessment – in the U.S., we are not allowed to access and permit our own resources, so we are forced to travel to other countries to find the materials that we need to feed our consumption.

If we are to reverse the current downward trends in the domestic mining industry, maintain our leadership role in the development of mining technology, environmental practices and enhance our market share of this crucial industry, we will have to develop a comprehensive Domestic Minerals Policy.

I believe one of the factors that have hampered the legislative process in the development of a strong Domestic Minerals and Energy Policy is the perception that Americans are opposed to mining in the U.S. and believe that federally managed lands should be set aside for purposes other than resource development. Survey research does not support that perception. According to a nationwide survey of 800 registered voters conducted by Market Strategies for the National Mining Association last year,

90% believe we need “a National Minerals Strategy to ensure our quality of life in the future”

73% say lands owned by the United States should be open to mining, provided the land is reclaimed [as required by law]

Only 22% say these lands “belong to the public and should be set aside for future generations to enjoy and should not be used for mining, forestry or ranching.”

Mining is a difficult venture no matter where the project is located around the globe. The modern mining industry must address many issues and concerns while developing projects – social-cultural considerations, engineering requirements, possible environmental impacts, economic needs, and many other concerns. Evaluations are completed within detailed and lengthy studies and communications. Investors and the people developing mineral projects should be able to operate with some level of confidence – if the regulatory requirements and laws are met, then mineral resource development can follow. That is a confidence realized more often on overseas projects. There are just too many inconsistencies in implementing the established regulations here in the U.S. to achieve that same level of confidence. The protracted, uncertain and contentious permitting processes here in the U.S. – for all aspects of mineral development, from exploration through production – creates an excessively uncertain investment atmosphere and has lead to a diversion of exploration funds to countries with more streamlined, transparent and expedited permitting processes. More and more investors view other countries more positively than the U.S., where monies can be put to work to benefit local and national economies.

Solutions
Many in the mining community believe that the inconsistencies and uncertainties related to permitting mine projects can be addressed. Below are suggestions toward correcting some of these inconsistencies:

Provide firm time guidelines and deadlines – for both the information gathering and review processes.
Review the adequacy of BLM and Forest Service staff and resources devoted to regulating mineral exploration and mining operations.
Update technical and policy guidance documents on a regular basis.
Increase and improve agency and stakeholder participation in the NEPA process from its earliest stages.

Expedite the review of permit applications for exploration projects affecting fewer than 5 acres of Forest Service-managed lands.
Require financial assurance for all mining and exploration activities that are not classified as casual use.
Mandate Plans of Operation for any mining or milling operation regardless of size.
Develop criteria and procedures for modifying Plans of Operation.
Adopt regulations that define temporary closure and require interim management plans.
Plan for and assure long-term, post-closure management of closed and reclaimed mines.
Provide authority to issue administrative penalties and develop clear guidelines for involving other state or federal enforcement authorities.
Modify existing environmental laws and regulations to allow and promote industry cleanup of abandoned mines and remove institutional and legal barriers currently thwarting such cleanup.
Secure Congressional funding for aggressive and coordinated research programs on the environmental impacts of hardrock mines.
Require the losing party to pay all costs and attorney fees if they challenge agency decisions in court.

As one mineral economist concluded recently -- the most serious threat to the mining industry's long term sustainability in the U.S. is the regulatory changes made in the final four years of the Clinton administration – including revisions to the 3809 Regulations and the Millsite Opinion. Let's work together to reverse these impediments and turn around the current trend towards offshore investment and greater reliance on foreign mineral sources. Let's work to develop and implement a working National Minerals Policy that serves to provide national and economic security now and into the future.

Appendix A

1998-99 Fraser Institute Survey

Some Excerpts

The Policy Potential Index serves as a report card to governments on how attractive their policies are from the point of view of an exploration manager.

The Mineral Policy Index rates a region's attractiveness based on mining company executives' perception of geology and mineral potential.

Investment Attractiveness Index combines the two above indices.

Executive Summary

1998-99 Survey with Figures 1-2, 5

December Press Release

1998-99 Survey

Appendix B

2002 Fraser Institute Survey

Figures 1-3, 5, 14, 15; Chart 1